



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[NRC-2013-0203]

Ultimate Heat Sink for Nuclear Power Plants; Draft Regulatory Guide

AGENCY: Nuclear Regulatory Commission.

ACTION: Draft regulatory guide; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment draft regulatory guide (DG), DG-1275, "Ultimate Heat Sink for Nuclear Power Plants." This regulatory guide (RG) describes methods and procedures acceptable to the NRC staff that nuclear power plant facility licensees and applicants may use to implement general design criteria (GDC) that are applicable to the ultimate heat sink (UHS) features of plant systems.

DATES: Submit comments by [INSERT DATE 60 DAYS FROM THE DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date. Although a time limit is given, comments and suggestions in connection with items for inclusion in guides currently being developed or improvements in all published guides are encouraged at any time.

ADDRESSES: You may submit comment by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2013-0203**. Address questions about NRC dockets to Carol Gallagher;

telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual(s) listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **Mail comments to:** Cindy Bladey, Chief, Rules, Announcements, and Directives Branch (RADB), Office of Administration, Mail Stop: 3WFN, 06-44M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

For additional direction on accessing information and submitting comments, see “Accessing Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Hector Rodriguez-Luccioni, telephone: 301-251-7685, e-mail: Hector.Rodriguez-Luccioni@nrc.gov, or Bruce Lin, telephone: 301-251-7653, e-mail: Bruce.Lin@nrc.gov. Both of the Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

I. Accessing Information and Submitting Comments

A. Accessing Information

Please refer to Docket ID **NRC-2013-0203** when contacting the NRC about the availability of information regarding this document. You may access publicly-available information related to this action by the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2013-0203**.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**

You may access publicly-available documents online in the NRC Library at

<http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdresource@nrc.gov. The draft regulatory guide is available electronically in ADAMS under Accession No. ML13043A624. The regulatory analysis may be found in ADAMS under Accession No. ML13043A628.

Regulatory guides are not copyrighted, and NRC approval is not required to reproduce them.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments

Please include Docket ID **NRC-2013-0203** in the subject line of your comment submission, in order to ensure that the NRC is able to make your comment submission available to the public in this docket.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC posts all comment submissions at <http://www.regulations.gov> as well as entering the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that

they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment submissions into ADAMS.

II. Additional Information

The NRC is issuing for public comment a draft guide in the NRC's "Regulatory Guide" series. This series was developed to describe and make available to the public such information as methods that are acceptable to the NRC staff for implementing specific parts of the NRC's regulations, techniques that the staff uses in evaluating specific problems or postulated accidents, and data that the staff needs in its review of applications for permits and licenses.

The draft regulatory guide, entitled, "Ultimate Heat Sink for Nuclear Power Plants," is temporarily identified by its task number, DG-1275. The DG-1275 is proposed revision 3 of Regulatory Guide 1.27, dated January 1976.

This regulatory guide describes methods and procedures acceptable to the NRC staff that nuclear power plant facility licensees and applicants may use to implement general design criteria that are applicable to the ultimate heat sink features of plant systems.

American National Standard Institute/American Nuclear Society (ANSI/ANS) Standard 2.21-2012, "Criteria for Assessing Atmospheric Effects on the Ultimate heat Sink," has been reviewed for applicability to this guide. This ANSI/ANS standard describes atmospheric effects for consideration when designing ultimate heat sinks for safety-related systems at nuclear power plants. Guidance from the ANSI/ANS standard has been incorporated in this guide

where appropriate. The NRC staff review of ANSI/ANS 2.21-2012 and DG 1275 criteria for assessing atmospheric effect on the ultimate heat sink is documented and can be found in ADAMS (ML13043A627).

IV. Backfitting and Issue Finality

Draft Regulatory Guide 1.27 provides guidance on one possible means for meeting NRC's regulatory requirements of the general design criteria (GDC) in appendix A, "General Design Criteria for Nuclear Power Plants," to part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR), which are applicable to the ultimate heat sink features of nuclear power plant systems. This draft regulatory guide, if finalized, would not constitute backfitting as defined in 10 CFR 50.109 (the Backfit Rule) and is not otherwise inconsistent with the issue finality provisions in 10 CFR part 52, "Licenses, Certifications and Approvals for Nuclear Power Plants." The NRC's position is based upon the following considerations.

Draft Regulatory Guide 1.27 may be applied to current applications for operating licenses, combined licenses, early site permits, and certified design rules docketed by the NRC as of the date of issuance of the final regulatory guide, as well as future applications submitted after the issuance of the regulatory guide. Such action would not constitute backfitting as defined in 10 CFR 50.109(a)(1) or be otherwise inconsistent with the applicable issue finality provision in 10 CFR part 52. Neither the Backfit Rule nor the issue finality provisions under Part 52 – with certain exclusions discussed below – were intended to apply to every NRC action which substantially changes the expectations of current and future applicants.

The exceptions to the general principle are applicable whenever a combined license applicant references a part 52 license (e.g., an early site permit) or NRC regulatory approval

(e.g., a design certification rule) with specified issue finality provisions. The NRC does not, at this time, intend to impose the positions represented in draft Regulatory Guide 1.27 on combined license applicants in a manner that is inconsistent with any issue finality provisions. If, in the future, the NRC seeks to impose a position in Regulatory Guide 1.27 in a manner which does not provide issue finality as described in the applicable issue finality provision, then the NRC must address the criteria for avoiding issue finality as described in the applicable issue finality provision.

Existing part 50 construction permit holders and part 50 operating license holders would not be required to comply with the positions set forth in draft Regulatory Guide 1.27, unless the construction permit or operating license holder makes a voluntary change to its licensing basis with respect to the ultimate heat sink (UHS) features of plant systems and the NRC determines that the safety review must include consideration of the ultimate heat sink (UHS) features of plant systems.

Existing design certification rules would not be required to be amended to comply with the positions set forth in draft Regulatory Guide 1.27, unless the NRC addresses the issue finality provisions in 10 CFR 52.63(a).

Existing combined license holders (referencing the AP1000 design certification rule in 10 CFR part 52, appendix D, would not be required to comply with the positions set forth in draft Regulatory Guide 1.27, unless the NRC addresses the issue finality provisions in 10 CFR 52.63(a).

Further information on the staff's use of the draft regulatory guide, if finalized, is contained in Regulatory Guide 1.27 under section D. *Implementation*.

Dated at Rockville, Maryland, this 26th day of August, 2013.

For the Nuclear Regulatory Commission.

Thomas H. Boyce, Chief,
Regulatory Guide Development Branch,
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Office of Nuclear Regulatory Research.

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